REMARKS

Patent claims 1-22 and new claims 23-49 are pending in this reissue application. In accordance with 37 C.F.R. § 1.173 regarding the manner of making amendments in reissue claims, Applicants have made amendments as follows: Claims 23-49, not being original patent claims, are added herein. No new matter has been introduced by way of this amendment. Exemplary support for the added claims is noted in the attached Status of Claims and Exemplary Support for Claims Pursuant to 37 C.F.R. § 1.173(d).

Claims 23, 24, and 46 are amended to recite "the" in reference to the respective amino acid sequence. Additionally, claim 46 is amended to clarify that the recited fragment is encoded by at least 18 bases of the recited nucleotide sequences. For the examiner's convenience, an informal marked-up version of the amendments to claims 23, 24, and 46 relative to the previously submitted claims 23, 24, and 46 is provided herewith. Applicants respectfully request that all rejections be withdrawn.

Applicants submit herewith a Supplemental Reissue Oath in accordance with 37 C.F.R. § 1.175(b) declaring that each error in the original patent occurred without deceptive intent on the part of the Applicants.

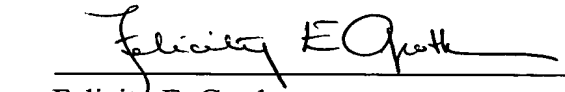
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, the undersigned may be contacted at 215-557-5908.

Respectfully submitted,

Date: May 26, 2005



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STATUS OF CLAIMS AND EXEMPLARY SUPPORT FOR CLAIMS PURSUANT TO 37 C.F.R. § 1.173(d)

1. (Pending)

2. (Pending)

3. (Pending)

4. (Pending)

5. (Pending)

6. (Pending)

7. (Pending)

8. (Pending)

9. (Pending)

10. (Pending)

11. (Pending)

12. (Pending)

13. (Pending)

14. (Pending)

15. (Pending)

16. (Pending)

17. (Pending)

18. (Pending)

19. (Pending)

20. (Pending)

21. (Pending)

22. (Pending)

23. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 1

Figures 1 and 2

24. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 1

Figures 1 and 2

25. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 1

26. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 1

27. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 4 and 5

28. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 4 and 5

29. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 19 and 21

30. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 19 and 21

31. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 8

Figures 1 and 2

32. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 8

33. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 8

34. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 12 and 13

35. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 12 and 13

36. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 14

37. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 15-17, 19, and 21

38. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 15-17, 19, and 21

39. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 15-17, 19, and 21

40. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 15-17, 19, and 21

41. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claims 15-17, 19, and 21

42. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 1

43. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Patent claim 1

44. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

45. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

46. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

Figures 1 and 2

47. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

48. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

49. (Pending)

Support:

Column 2, lines 32-49; Column 3, line 5 through Column 4, line 11

MARKED-UP VERSION OF AMENDED CLAIMS FOR EXAMINER'S CONSIDERATION

23. A method of producing a polypeptide comprising ~~an~~the amino acid sequence of

Gly Pro Glu Thr Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe Val Cys Gly Asp Arg Gly Phe Tyr Phe Asn Lys Pro Thr Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Asp Glu Cys Cys Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys Ala Pro Leu Lys Pro Ala Lys Ser Ala; or

Ala Tyr Arg Pro Ser Glu Thr Leu Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp Arg Gly Phe Tyr Phe Ser Arg Pro Ala Ser Arg Val Ser Arg Arg Ser Arg Gly Ile Val Glu Glu Cys Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu Glu Thr Tyr Cys Ala Thr Pro Ala Lys Ser Glu,

comprising expressing said polypeptide in a suitable host cell transformed with a polynucleotide encoding said polypeptide, wherein said polynucleotide comprises a nucleic acid sequence selected from the group consisting of:

(a) 5'-GGA CCG GAG ACG CTC TGC GGG GCT GAG CTG GTG GAT GCT CTT CAG TTC GTG TGT GGA GAC AGG GGC TTT TAT TTC AAC AAG CCC ACA GGG TAT GGC TCC AGC AGT CGG AGG GCG CCT CAG ACA GGT ATC GTG GAT GAG TGC TGC TTC CGG AGC TGT GAT CTA AGG AGG CTG GAG ATG TAT TGC GCA CCC CTC AAG CCT GCC AAG TCA GCT-3'; and

(b) 5'-GCT TAC CGC CCC AGT GAG ACC CTG TGC GGC GGG GAG CTG GTG GAC ACC CTC CAG TTC GTC TGT GGG GAC CGC GGC TTC TAC TTC AGC AGG CCC GCA AGC CGT GTG AGC CGT CGC AGC CGT GGC ATC GTT GAG GAG TGC TGT TTC CGC AGC TGT GAC CTG GCC CTC CTG GAG ACG TAC TGT GCT ACC CCC GCC AAG TCC GAG-3'.

24. A method of producing a polypeptide comprising ~~an~~ the amino acid sequence of

Gly Pro Glu Thr Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe Val Cys Gly Asp Arg Gly Phe Tyr Phe Asn Lys Pro Thr Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile

Val Asp Glu Cys Cys Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys Ala Pro Leu Lys Pro Ala Lys Ser Ala; or

Ala Tyr Arg Pro Ser Glu Thr Leu Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp Arg Gly Phe Tyr Phe Ser Arg Pro Ala Ser Arg Val Ser Arg Arg Ser Arg Gly Ile Val Glu Glu Cys Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu Glu Thr Tyr Cys Ala Thr Pro Ala Lys Ser Glu,

comprising introducing into a suitable host cell a nucleic acid molecule comprising a polynucleotide encoding said polypeptide, wherein said polynucleotide comprises a nucleic acid sequence selected from the group consisting of:

(a) 5'-GGA CCG GAG ACG CTC TGC GGG GCT GAG CTG GTG GAT GCT CTT CAG TTC GTG TGT GGA GAC AGG GGC TTT TAT TTC AAC AAG CCC ACA GGG TAT GGC TCC AGC AGT CGG AGG GCG CCT CAG ACA GGT ATC GTG GAT GAG TGC TGC TTC CGG AGC TGT GAT CTA AGG AGG CTG GAG ATG TAT TGC GCA CCC CTC AAG CCT GCC AAG TCA GCT-3'; and

(b) 5'-GCT TAC CGC CCC AGT GAG ACC CTG TGC GGC GGG GAG CTG GTG GAC ACC CTC CAG TTC GTC TGT GGG GAC CGC GGC TTC TAC TTC AGC AGG CCC GCA AGC CGT GTG AGC CGT CGC AGC CGT GGC ATC GTT GAG GAG TGC TGT TTC CGC AGC TGT GAC CTG GCC CTC CTG GAG ACG TAC TGT GCT ACC CCC GCC AAG TCC GAG-3'.

46. An expression vector comprising a polynucleotide encoding a polypeptide, wherein said polypeptide comprises ~~an~~the amino acid sequence of:

_____(a) Gly Pro Glu Thr Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe Val Cys Gly Asp Arg Gly Phe Tyr Phe Asn Lys Pro Thr Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Asp Glu Cys Cys Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys Ala Pro Leu Lys Pro Ala Lys Ser Ala;

_____(b) Ala Tyr Arg Pro Ser Glu Thr Leu Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp Arg Gly Phe Tyr Phe Ser Arg Pro Ala Ser Arg Val Ser Arg Arg Ser Arg Gly Ile Val Glu Glu Cys Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu Glu Thr Tyr Cys Ala Thr Pro Ala Lys Ser Glu; or

(c) a fragment ~~thereof~~ of said amino acid sequence (a) or (b),

wherein said amino acid sequence~~, or fragment thereof,~~ (a) is encoded by ~~a nucleic acid sequence selected from the group consisting of the following nucleic acid sequences:~~ the nucleic acid sequence

~~(a)~~ 5'-GGA CCG GAG ACG CUC UGC GGG GCU GAG CUG GUG GAU GCU CUU CAG UUC GUG UGU GGA GAC AGG GGC UUU UAU UUC AAC AAG CCC ACA GGG UAU GGC UCC AGC AGU CGG AGG GCG CCU CAG ACA GGU AUC GUG GAU GAG UGC UGC UUC CGG AGC UGU GAU CUA AGG AGG CUG GAG AUG UAU UGC GCA CCC CUC AAG CCU GCC AAG UCA GCU-3', wherein U can also be T;

wherein said amino acid sequence (b) is encoded by the nucleic acid sequence

~~(b)~~ 5'-GCU UAC CGC CCC AGU GAG ACC CUG UGC GGC GGG GAG CUG GUG GAC ACC CUC CAG UUC GUC UGU GGG GAC CGC GGC UUC UAC UUC AGC AGG CCC GCA AGC CGU GUG AGC CGU CGC AGC CGU GGC AUC GUU GAG GAG UGC UGU UUC CGC AGC UGU GAC CUG GCC CUC CUG GAG ACG UAC UGU GCU ACC CCC GCC AAG UCC GAG-3', wherein U can also be T; ~~and~~

~~(c) a fragment of (a) or (b) that is at least 18 bases in length.~~

and wherein said fragment is encoded by a nucleic acid sequence of at least eighteen bases of a nucleic acid sequence selected from the group consisting of:

5'-GCU UAC CGC CCC AGU GAG ACC CUG UGC GGC GGG GAG CUG GUG GAC ACC CUC CAG UUC GUC UGU GGG GAC CGC GGC UUC UAC UUC AGC AGG CCC GCA AGC CGU GUG AGC CGU CGC AGC CGU GGC AUC GUU GAG GAG UGC UGU UUC CGC AGC UGU GAC CUG GCC CUC CUG GAG ACG UAC UGU GCU ACC CCC GCC AAG UCC GAG-3', wherein U can also be T; and

5'-GGA CCG GAG ACG CUC UGC GGG GCU GAG CUG GUG GAU GCU CUU CAG UUC GUG UGU GGA GAC AGG GGC UUU UAU UUC AAC AAG CCC ACA GGG UAU GGC UCC AGC AGU CGG AGG GCG CCU CAG ACA GGU AUC GUG GAU GAG UGC UGC UUC CGG AGC UGU GAU CUA AGG AGG CUG GAG AUG UAU UGC GCA CCC CUC AAG CCU GCC AAG UCA GCU-3', wherein U can also be T.